LG Electronic Polyphase Electricity Meter

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LG Electronic Polyphase Electricity Meter

GENERAL

This meter is LG electronic polyphase electricity meter with real, reactive, power factor measurement capability. The meter consists of the base, main cover, lower cover, terminal cover, upper frame, basic circuit board, power & communication circuit board, register circuit board. It has been tested and verified that it complies with IEC 1036 & IEC 687.

METER TYPES

- Polyphase 3 wire and 4 wire system
- Basic Model : 110V / 190V, 5(2.5)A, 60Hz
- Class 0.5 and class 1.0

SYSTEM COMPATIBILITY

- Programming and Reading by Optical Communication port based on IEC 1107 & ANSI C12,13
- Data translation support in software package (KERNEL : Korean language version software)
- Dial Up Modem Interface for communication

METER COMPATIBILITY

- Front connection mounting
- Flush mounting

OUTPUT FUNCTION

- Standard outputs
  - pulse initiator signal (Forward kwh, Lagging kvarh, Leading kvarh)
  - End of interval signal

• Model Name : LGRW34-05Type

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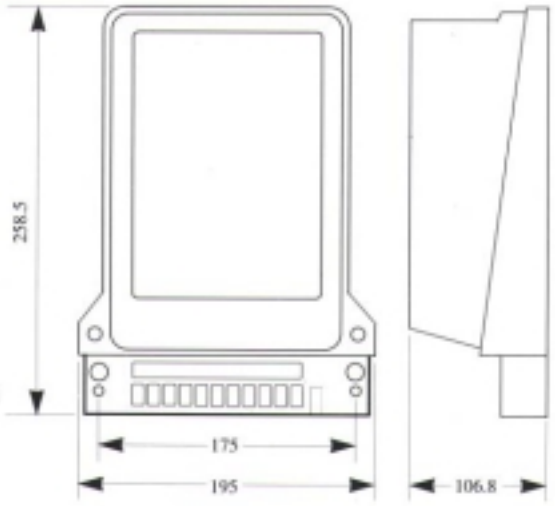
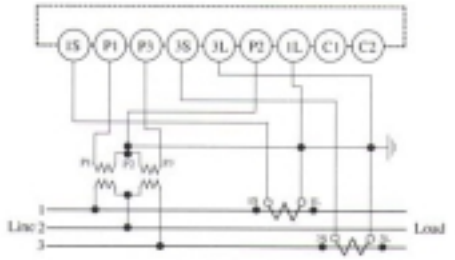
TECHNICAL DATA

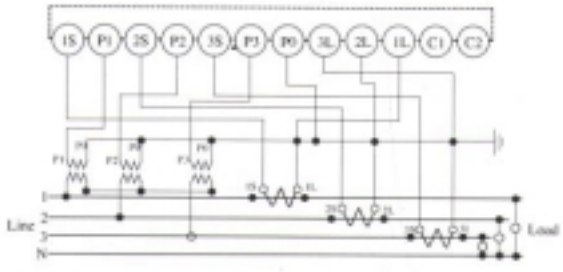
ITEMS	DESCRIPTION
Voltage	110/190V
Current	5(2.5)A
Frequency	60Hz
Accuracy	Class 0.5 (IEC 687) Class 1.0 (IEC 1036)
Meter constant	3wire:0.025(Wh/pulse) 4wire: 0.5(Wh/pulse)
Recording channel	4CH
Temperature range	-25 ℃ ~ +55℃
Voltage loss(CL1.0)	< 2.0W per phase
Current loss(CL1.0)	< 0.1W per phase
Battery	850mAh, 3.6V, Lithium
Display	16 by 2 line DOT characters LCD
RAM	1M bit
EPROM	512K bit
CPU	68HC11E(Motorola)
Weight	2.3Kg
Dimensions	191(W) × 258.5(D) × 106.8(H)



● External Connection Diagram



3phase 3wire
(Transformer Rated with voltage and Current Transformers)



3phase 4wire
(Transformer Rated with voltage and Current Transformers)

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PROGRAMMABLE DATES

- Calendar
  - programmable TOU schedule ; each time, weekday, weekend, season, sunday, irregular holidays(up to 30 days per year)
- Time Switch
  - TOU for 5 Tariffs with up to selectable tariff set points per day
- Demand reset days
  - Programmable regular and irregular demand reset days

DISPLAYABLE QUANTITIES

- Energy(kwh, kvarh)
  - total
  - TOU rate period quantities by quadrant concept
- Demand(kw, kvarh)
  - current
  - previous interval demand
  - cumulative, continuously cumulative
- Power factor
  - TOU average power factor
  - total average power factor
  - previous interval power factor

MEASURED QUANTITIES

- kwh, kvarh
  - Bidirectional kwh(Forward, Reverse)
  - Lagging and Leading kvarh
  - Total consumption
  - Five independent programmable TOU periods
  - Displayable 7 digits
  - Selectable decimal position
- kw, kvar demand
  - Measured concurrently with programmable kwh, kvarh
  - Display selection; current, cumulative, continuously cumulative
  - Programmable display format ; decimal position
  - Block interval or rolling demand cumulation with selectable intervals
    block interval : 5,10,15,30 and 60 minutes
    sub interval : 1,2,3,4,5 minutes
  - Demand intervals start simultaneously with TOU period
- Power Factor
  - Average power factor (Total, TOU period)
  - power factor at previous interval
  - power factor at kw, kvar during TOU period
- TOU rate
  - 5 TOU rate (A , B , C , D , E)
- Display Identifier
  - display by special letter
- Units of value
  - kwh, kvarh, kw, kvar, etc.

BATTERY

- Maintain register memory for 120 days
- Lithium thionyl chloride ($LiSOCl_2$) type

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SYSTEM INTEGRATION

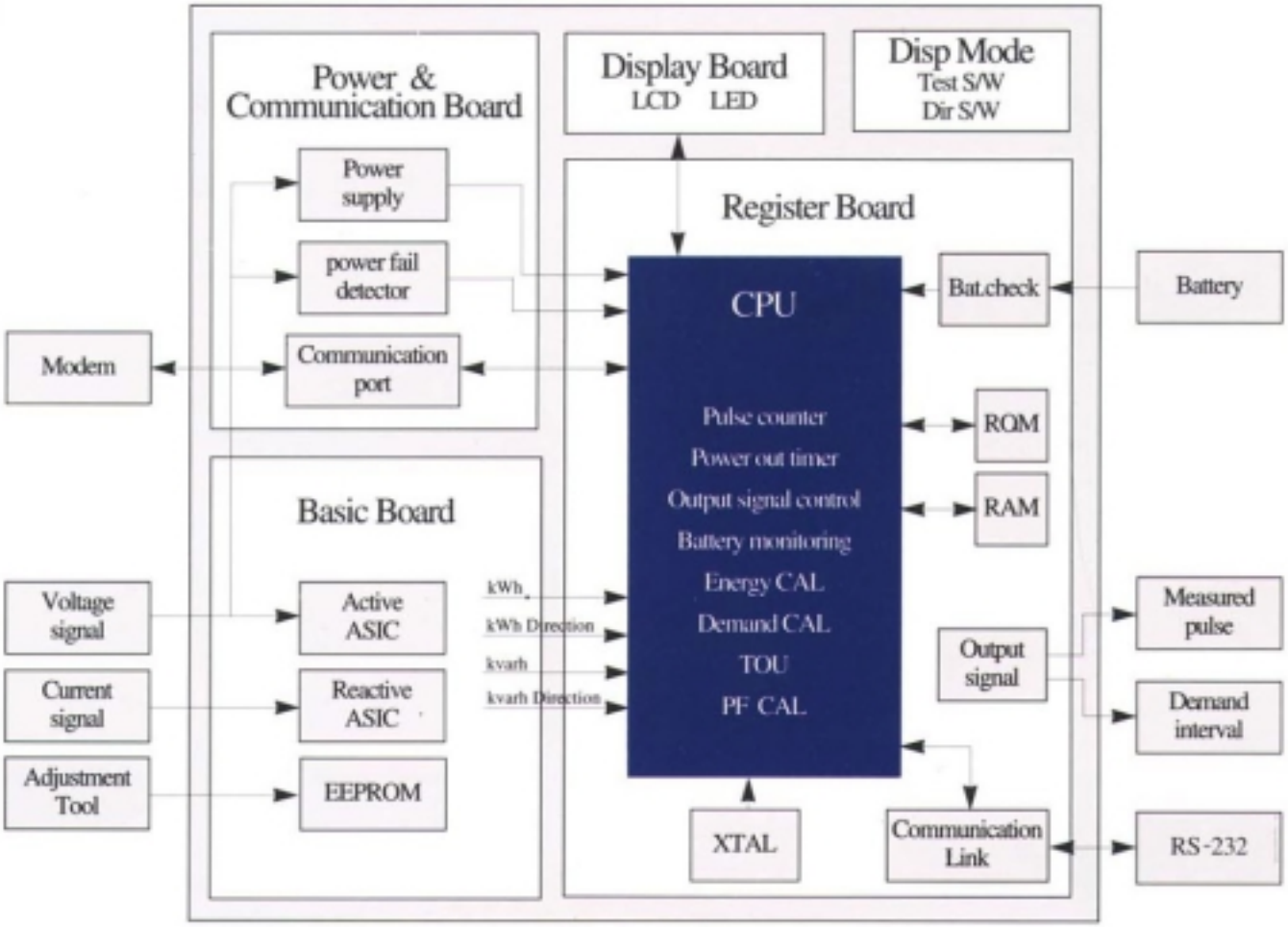
- Meter status display
  - pulse input blink indicator on display
  - Quadrant indicator on display
  - "Demand Reset" display
  - Error number & error contents display

- Display operation
  - programmable sequence of display item
  - display item names for each item
  - programmable display time for each item
  - Alternate scroll easy to initiate and exit using display switch
- Test mode

- Optional external dial up modem
  - read a recorded data from meter to central station
  - data rate : ASYNCHRONOUS 1200, 2400 bps.
  - line requirement : voice band two-wire PSTN line

- Local program loader
  - programmable TOU schedule
  - read a measuring data
  - IBM-PC based WINDOWS compatible software

- Remote reading software
  - IBM-PC based WINDOWS compatible software
  - protocol : IEC 1107 mode C
  - Management and Billing in central



● Block diagram ●

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LG constantly endeavors to improve our products, so that information in this catalog is subject to change without notice.

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